



PTO/SB/21 (09-04)
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TRANSMITTAL FORM

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Total Number of Pages in This Submission

Application Number 10/773,777

Filing Date Feb. 6, 2004

First Named Inventor Anand P. Narayan

Art Unit

Examiner Name

Attorney Docket Number TCOM0006

ENCLOSURES (Check all that apply)

- | | | |
|---|---|---|
| <input type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Drawing(s) | <input type="checkbox"/> After Allowance Communication to TC |
| <input type="checkbox"/> Fee Attached | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input type="checkbox"/> Amendment/Reply | <input type="checkbox"/> Petition | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information |
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| <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | | |

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Signature

Printed name

Steven J Shattil

Date

03/04/2005

Reg. No.

40,170

CERTIFICATE OF TRANSMISSION/MAILING

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Steven J Shattil

Date 03/04/2005

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Internal Docket No.: TCOM0006

U.S. Patent Application No. : 10/773,777
Filing Date : Feb. 6, 2004
First Named Inventor : Anand P. Narayan
Title : Systems and Methods for Parallel Signal
Cancellation
Date : March 4, 2005

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

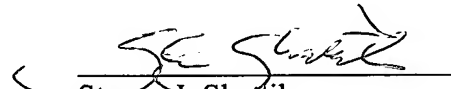
Information Disclosure Statement

Pursuant to 37 C.F.R. §1.56, 1.97, and 1.98, this Information Disclosure Statement is submitted in the above-identified patent application. A listing of documents to be published on the face of any patent granted from this application is submitted herewith on Form PTO-1449. Any other documents or information submitted for consideration by the Examiner are listed in this paper. A copy of each foreign patent and publication, or portion thereof listed or herein identified, is submitted herewith, except that a copy of any U.S. patent application identified herein or any patent publication or other information listed herein cited or submitted in a prior application relied upon for an earlier filing date under 35 U.S.C. §120 and identified below, is not submitted.

Certification

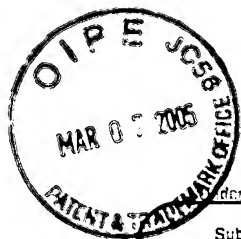
This Information Disclosure Statement is submitted prior to the mailing date of the first Office Action on the merits received by Applicant in the above-identified application.

March 4, 2005
Date


Steven J. Shattil

Respectfully submitted,

Steven J Shattil
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PTO/SB/030 (03-03)

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Substitute for form 1449A/PTO

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 12

Application Number	10/773,777
Filing Date	Feb. 6, 2004
First Named Inventor	Anand P. Narayan
Art Unit	
Examiner Name	
Attorney Docket Number	TCOM-0006

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (1=us)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 4088955	05-09-1978	Baghdady	
		US- 4309769	01-05-1982	Taylor, Jr.	
		US- 4359738	11-16-1982	Lewis	
		US- 4665401	05-12-1987	Garrard et al.	
		US- 4670885	06-02-1987	Parl et al.	
		US- 4780885	10-25-1988	Paul et al.	
		US- 4856025	10-08-1989	Takai	
		US- 4893316	01-09-1990	Janc et al.	
		US- 4922506	05-01-1990	McCallister et al.	
		US- 4933639	06-12-1990	Barker	
		US- 4965732	10-23-1990	Roy III et al.	
		US- 5017929	05-21-1991	Tsuda	
		US- 5099493	05-24-1992	Zeger et al.	
		US- 5105435	04-14-1992	Stilwell	
		US- 5109390	04-28-1992	Gilhausen et al.	
		US- 5119401	06-02-1992	Tsujimoto	
		US- 5136296	04-04-1992	Roettger et al.	
		US- 5151919	09-29-1992	Dent	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country, Serial Number, and Kind Code (optional)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		EP 0558910 A1	01-25-1993	Blaunpunkt-Werke GmbH	
		EP 0610989 A2	01-31-1994	Phillips Patentverwaltung GmbH	
		JP2000-13360A	01-14-2000	NEC Corp.	
		DE 4201439 A1	07-22-1993	Daimler-Benz	
		DE 4326843 A1	02-16-1995	Richard Hirschmann GmbH & Co	

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Sheet 2

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		US- 5218359	06-08-1993	Minamisono	
		US- 5218619	06-08-1993	Dent	
		US- 5220687	06-05-1993	Ichikawa et al.	
		US- 5224122	06-29-1993	Bruckert	
		US- 5237586	08-17-1993	Bottomley	
		US- 5263191	11-16-1993	Dickerson	
		US- 5280472	01-18-1994	Gilhausen et al.	
		US- 5305349	04-19-1994	Dent	
		US- 5325394	06-28-1994	Bruckert	
		US- 5343493	08-30-1994	Karimullah	
		US- 5343496	08-30-1994	Honig et al.	
		US- 5347535	09-13-1994	Karasawa et al.	
		US- 5353302	10-04-1994	Bi	
		US- 5386202	01-31-1995	Cochran et al.	
		US- 5390207	02-14-1995	Fenton et al.	
		US- 5394110	02-28-1995	Mizoguchi	
		US- 5396256	03-07-1995	Chiba et al.	
		US- 5437055	07-25-1995	Wheatley III	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7 ⁶
		DE 4343959 A1	06-29-1995	Rienow Hirschmann GmbH & Co		
		WO 93/12590	06-24-1995	Array-Comm, Inc.		522061
		GB 2280575 A	02-01-1995	Roke Manor Research Limited		522061
						522061
						522061
						522061

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Sheet 3

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Application Number	10/773,777
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First Named Inventor	Anand P. Narayan
Art Unit	
Examiner Name	
Attorney Docket Number	TCOM-0006

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5440265	08-08-1995	Cochran et al.	
		US- 5448600	09-05-1995	Lucas	
		US- 5481570	01-02-1996	Winters	
		US- 5506865	04-09-1996	Weaver Jr.	
		US- 5513176	04-30-1996	Dean et al.	
		US- 5533011	04-02-1996	Dean et al.	
		US- 5553098	09-03-1996	Cochran et al.	
		US- 5602833	02-11-1997	Zehavi	
		US- 5644592	07-01-1997	Divsalar	
		US- 5736964	04-07-1998	Ghosh et al.	
		US- 5787130	07-28-1998	Kotzin et al.	
		US- 5844521	12-01-1998	Stephens et al.	
		US- 5859613	01-12-1999	Otto	
		US- 5872540	02-16-1999	Casabona	
		US- 5872776	02-16-1999	Yang	
		US- 5926761	07-20-1999	Reed et al.	
		US- 5930229	07-27-1999	Yoshida et al.	
		US- 5953369	09-14-1999	Suzuki	

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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figure Appear	Tab.
		Foreign Pat. No. 1,234,567 (1988)				1000
						540.15
						540.15
						540.15
						540.15

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4

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Application Number 10/773 777

Filing Date Feb 6 2004

First Named Inventor **Anand P. Narayan**

Art Unit

Examiner Name

Attorney Docket Number TCOM-0006

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5995499	11-30-1999	Hottinen et al.	
		US- 6002727	12-14-1999	Uesugi	
		US- 6014373	01-11-2000	Schilling et al.	
		US- 6018317	01-25-2000	Dogan et al.	
		US- 6088383	07-11-2000	Suzuki et al.	
		US- 6101385	08-08-2000	Monte et al.	
		US- 6104712	08-15-2000	Robert et al.	
		US- 6115409	09-05-2000	Upadhyay et al.	
		US- 6127973	10-03-2000	Choi et al.	
		US- 6131013	10-10-2000	Bergstrom et al.	
		US- 6137788	10-24-2000	Sawahashi et al.	
		US- 6141332	10-31-2000	Lavaen	
		US- 6154443	11-28-2000	Huang et al.	
		US- 6157685	12-05-2000	Tanaka et al.	
		US- 6157842	12-05-2000	Kaisson et al.	
		US- 6157847	12-05-2000	Buehrer et al.	
		US- 6163696	12-19-2000	Bi et al.	
		US- 6166690	12-26-2000	Lin et al.	

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Sheet 5

of 12

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Application Number 10/773.777

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First Named Inventor	Anand P. Narayan
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U. S. PATENT DOCUMENTS

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		US- 6172969	01-09-2001	Kawakami et al.	
		US- 6175587	01-15-2001	Madhow et al.	
		US- 6192067	02-20-2001	Toda et al.	
		US- 6201799	03-13-2001	Huang et al.	
		US- 6215812	04-10-2001	Young et al.	
		US- 6219376	04-17-2001	Zhodzishsky et al.	
		US- 6222828	04-24-2001	Ohlson et al.	
		US- 6230180	05-08-2001	Mohamed	
		US- 6233229	05-15-2001	Ranta et al.	
		US- 6233459	05-15-2001	Sulliyen et al.	
		US- 6240124	05-29-2001	Wiedeman et al.	
		US- 6252535	06-26-2001	Kober et al.	
		US- 6256336	07-03-2001	Rademacher et al.	
		US- 6259688	07-10-2001	Schilling et al.	
		US- 6263208	07-17-2001	Chang et al.	
		US- 6275186	08-14-2001	Kong	
		US- 6278726	08-21-2001	Mesecher et al.	
		US- 6282231	08-21-2001	Norman et al.	

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		Security Code (1) and Security Marking				
						(102)
						(112)

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		US- 6282233	08-28-2001	Yoshida	
		US- 6285316	09-04-2001	Nir et al.	
		US- 6285319	09-04-2001	Rose	
		US- 6301289	10-09-2001	Bejjani et al.	
		US- 6304618	10-16-2001	Hafeez et al.	
		US- 6308072	10-23-2001	Labedz et al.	
		US- 6310704	10-30-2001	Dogan et al.	
		US- 6317453	11-13-2001	Chang	
		US- 6321090	11-20-2001	Soliman	
		US- 6324159	11-27-2001	Mennekens et al.	
		US- 6327471	12-04-2001	Song	
		US- 6330460	12-11-2001	Wong et al.	
		US- 6333947	12-25-2005	van Heeswyk et al.	
		US- 6351235	02-26-2002	Stilp	
		US- 6351642	02-26-2002	Corbett et al.	
		US- 6359874	03-19-2002	Dent	
		US- 6362760	03-26-2002	Kober et al.	
		US- 6377636	04-23-2002	Paulraj et al.	

FOREIGN PATENT DOCUMENTS

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Sheet 7

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Application Number	10/773,777
Filing Date	Feb. 6, 2004
First Named Inventor	Anand P. Narayan
Art Unit	
Examiner Name	
Attorney Docket Number	TCOM-0006

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.†	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 6380879	04-30-2002	Kober et al.	
		US- 6396804	05-28-2002	Odenwalder	
		US- 6430216	08-06-2002	Kober et al.	
		US- 6459693	10-01-2002	Park et al.	
		US- 20010003443	06-14-2001	Velazquez et al.	
		US- 20010020912	09-13-2001	Naruse et al.	
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		US- 20020051433	05-02-2002	Affes et al.	
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FOREIGN PATENT DOCUMENTS

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Examiner Initials	Cite As	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Paragraphs or Relevant Figures Apparent
		U.S. Pat. 2,800,000	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,001	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,002	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,003	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,004	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,005	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,006	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,007	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,008	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,009	1958-09-02	General Electric Co.	1-10
		U.S. Pat. 2,800,010	1958-09-02	General Electric Co.	1-10

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Sheet 8

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Application Number	10/773,777
Filing Date	Feb. 6, 2004
First Named Inventor	Anand P. Narayan
Art Unit	
Examiner Name	
Attorney Docket Number	TCOM-0006

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		US- 6584115	06-24-2003	Suzuki	
		US- 6266529	07-24-2001	Chheda	
		US- 5978413	11-02-1999	Bender	
		US- 6590888	07-08-2003	Ohshima	
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		US- 6032056	02-29-2000	Reudink	
		US- 4601046	07-15-1986	Halpern	
		US- 6515980	02-04-2003	Bottomley	
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		US- 6801565	10-05-2004	Bottomley	
		US- 6404760	06-11-2002	Holtzman	
		US- 6385264	05-07-2002	Terasawa	
		US- 6680727	01-20-2004	Butler	
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		US- 6580771	06-17-2003	Kenney	
		US- 6363104	03-26-2002	Bottomley	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 9 of 12**Complete if Known**

Application Number	10/773,777
Filing Date	Feb. 6, 2004
First Named Inventor	Anand P. Narayan
Art Unit	
Examiner Name	
Attorney Docket Number	TCOM-0006

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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Sheet 10

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Application Number 10/773,777

Filing Date Feb. 6, 2004

First Named Inventor Anand P. Narayan

Art Unit

Examiner Name

Attorney Docket Number TCOM-0006

NON PATENT LITERATURE DOCUMENTS

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		VERDU, Minimum Probability of Error for Asynchronous Gaussian Multiple-Access Channels, IEEE Transactions on Information Theory, Jan. 1986, Vol. IT-32, No. 1	

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**INFORMATION DISCLOSURE
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Sheet

11

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12

Application Number **Complete if Known**

10/773,777

Filing Date Feb. 6, 2004

First Named Inventor Anand P. Narayan

Art Unit

Examiner Name

Attorney Docket Number TCOM-0006

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		BEHRENS ET AL., Signal Processing Applications of Oblique Projection Operators, IEEE Transactions on Signal Processing, Jun. 1994, Vol. 42, No. 6	
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**INFORMATION DISCLOSURE
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Sheet 12

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Application Number 10/773,777

Filing Date Feb. 6, 2004

First Named Inventor Anand P. Narayan

Art Unit

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		SCHLEGEL ET AL., Projection Receiver: A New Efficient Multi-User Detector, IEEE, 1995, 0-7803-2509-5/95	12
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